

**What Is Claimed Is:**

1. An electric heating device for a motor vehicle comprising:

an electrical energy source,

5 a heating element, and

a regulating circuit, said regulating circuit operatively connecting said electrical energy source to said heating element,

wherein said regulating circuit determines a power level based on a status signal and supplies said power level to said heating element from said electrical energy source, wherein said status signal is related to a current maximum available power level of said electrical energy source.

15 2. The electric heating device of claim 1, wherein said regulating circuit is capable of providing a continuously variable power level to said heating element.

3. The electric heating device of claim 1, wherein said electrical energy source is an alternator.

4. The electric heating device of claim 1, further comprising a user interface, said user interface being capable of providing a visual display indicative of said power level to a user.

25 5. The electric heating device of claim 1, wherein said status signal is further related to at least one of an ambient temperature, an engine temperature, a passenger compartment temperature, a humidity level, a battery voltage, a battery charge state, and an electrical load state.

6. The electric heating device of claim 1, wherein said power level is determined by said

regulating circuit by processing said status signal with a proportional-integral algorithm.

7. A method for regulating the supply of power to a heating element of a motor vehicle,  
5 comprising:

determining a status signal, said status signal being related to a current maximum available power level of an electrical energy source,

determining a power level based on said status  
10 signal, and

supplying said power level from said electrical energy source to said heating element.

8. The method of claim 7, wherein said power level is limited based on a maximum power level of said  
15 heating element.

9. The method of claim 7, wherein determining said power level is achieved by processing said status signal with a proportional-integral algorithm.

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